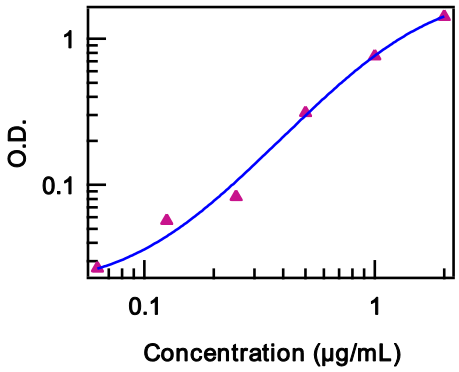
Human BMP-2 Recombinant Protein Carrier-Free

Catalog Number: 34-8507
Also known as: Bone Morphogenetic Protein 2
RUO: For Research Use Only. Not for use in diagnostic procedures.



Induction of alkaline phosphatase in C3H/10T1/2 cells by Human BMP-2 Recombinant Protein

Product Information

Contents: Human BMP-2 Recombinant Protein Carrier-Free
REF **Catalog Number:** 34-8507
Concentration: 0.5 mg/mL
Handling Conditions: For best recovery, quick-spin vial prior to opening. Use in sterile environment.
Source: E. coli expressed amino acids Gln283-Arg396 accession number NP_001191
Molecular Mass: 13 kDa
Purity: > 97%, as determined by SDS-PAGE.
Endotoxin: Less than 0.01 ng/ug cytokine as determined by the LAL assay.
Bioactivity: The ED50 of this protein, as determined by alkaline phosphatase induction in C3H/10T1/2 cells, is 0.25-1 ug/mL. This corresponds to a specific activity of 4x10e3 - 1x10e3 Units/mg.

Formulation: Sterile liquid: 0.1 M glycine, pH 3.0
Temperature Limitation: Store at less than or equal to -70°C.
LOT **Batch Code:** Refer to vial
Use By: Refer to vial

Description

BMP-2 is one of fifteen bone morphogenetic proteins (BMP) belonging to the TGF-β superfamily. The BMPs were first identified as the active factors in demineralized bone matrix, with transcripts later being discovered in many other types of tissue. They are synthesized as large precursor molecules that must be cleaved into their active form and dimerize in order to exhibit functional activity. These dimers may include two identical or distinct BMP chains. BMP responsiveness appears to be limited to multipotent and immature cells. The BMPs are essential for osteogenesis and organogenesis during embryonic development, and also play a role in fracture and wound healing in adults.

Applications Reported

Human BMP-2 Recombinant Protein Carrier-Free is biologically active.

Applications Tested

The ED_{50} of this protein, as determined by alkaline phosphatase induction in C3H/10T1/2 cells, is 0.25-1 µg/mL. This corresponds to a specific activity of $4x10^3$ - $1x10^3$ Units/mg.

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References

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Danesh SM, Villasenor A, Chong D, Soukup C, Cleaver O. BMP and BMP receptor expression during murine organogenesis. Gene Expr Patterns. 2009 Jun;9(5):255-65.

Groeneveld EH, Burger EH. Bone morphogenetic proteins in human bone regeneration. Eur J Endocrinol. 2000 Jan;142(1):9-21.

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